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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,685	09/12/2006	Hiroshi Ichigaya	101539.57354US	9221

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EXAMINER
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MCLEARN, STEPHANIE D

ART UNIT	PAPER NUMBER
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4157

MAIL DATE	DELIVERY MODE
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09/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,685	<b>Applicant(s)</b> ICHIGAYA, HIROSHI	
	<b>Examiner</b> STEPHANIE MCLAREN	<b>Art Unit</b> 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/12/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Elsherif et al. (5,564,124).

With regards to claim 17, Elsherif et al. disclose a cooling suit to be worn on a wearer, comprising: at least one air inlet configured to introduce outside air (26, col. 4, line 17-18); at least one parallel airstream generation means having: vanes; a motor for rotating said vanes; a front face formed with an air suction port; and a side surface formed with a parallel airstream deliver portion; the or each parallel airstream generation means being provided for introducing outside air from said air suction port and for blowing the air substantially in a sideward direction from said parallel airstream deliver portion to generate parallel airstreams which are substantially parallel to the wearer's body (50, 52, col. 7, line 2-3); a guide sheet simultaneously serving as a garment and for guiding the parallel airstreams generated by the or each parallel airstream generation means, parallelly to the wearer's body (10, 18, 20, col. 3, line 55-58); at least one air exit portion configured to discharge the parallel airstreams to the exterior (34, 36, 38, 40, 42, col. 4, line 5-8); and electric-power source means

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detachably provided on said guide sheet and for supplying electric power to the or each parallel airstream generation means (col. 3, line 55); wherein the or each air inlet is formed in said guide sheet (26, col. 4, line 17-18); wherein the or each parallel airstream generation means is detachably provided inside said guide sheet so that said air suction port of the or each parallel airstream generation means is opposed to the or each associated air inlet formed in said guide sheet, and so that said parallel airstream deliver portion of the or each parallel airstream generation means is positioned inside said guide sheet (col. 3, line 53-54); to cause positive pressures between said guide sheet and the undergarment or wearer's body to thereby produce an air flow space there between (col. 4, line 36-39), and the or each parallel airstream generation means causes the blown air to flow through said air flow space to thereby discharge moisture due to perspiration to the exterior and to thereby constantly feed fresh outside air into said air flow space, thereby largely intensifying conditions where perspiration can be evaporated (by definition, blown air will cause greater evaporation by convective cooling).

Elsherif fail to disclose and wherein the or each parallel airstream generation means cooperatively blows air of a total amount of about  $10 \text{ m}^3/\text{H}$  to  $500 \text{ m}^3/\text{H}$  into between said guide sheet and an undergarment or wearer's body.

It would have been obvious to one having ordinary skill in the art at the time of the invention to blow air to a total amount of  $10 \text{ m}^3/\text{H}$  to  $500 \text{ m}^3/\text{H}$  because it has been held that discovering an optimum value of a result effective variable requires only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)

With regards to claim 18, Elsherif et al. disclose wherein each parallel airstream generation means comprises a sideward-flow fan (50, 52, capable of, col. 7, line 2-4)

With regards to claim 19, Elsherif et al. disclose a system further comprising a fan guard attached to an air inlet of the or each parallel airstream generation means (50, 52, see fig. 8).

With regards to claim 20, Elsherif et al. disclose a system wherein the or each parallel airstream generation means comprises: a propeller fan or mixed-flow fan (50,52); and a parallel airstream conversion plate (68); and wherein said propeller fan or mixed-flow fan and said parallel airstream conversion plate are integrated with each other (50, 52 capable of, col. 7, line 2-4).

With regards to claim 21, Elsherif et al. disclose a system wherein the or each parallel airstream generation means includes a parallel airstream deliver portion formed with a fan guard (50, 52, see fig. 8).

With regards to claim 22, Elsherif et al. disclose a system further comprising suspending means for suspending the or each parallel airstream generation means from the above so that parallel airstreams delivered by the or each parallel airstream

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generation means are made substantially parallel to the wearer's body (In one embodiment, col. 3, line 59-60).

With regards to claim 23, Elsherif et al. disclose a system further comprising fixation means provided for fixing the or each parallel airstream generation means to the wearer's body or undergarment (col. 3, line 57-60).

With regards to claim 24, Elsherif et al. disclose a system wherein said electric-power source means comprises a battery (capable of, col. 3, line 60-61). It would have been obvious to one having ordinary skill in the art to also use an equivalent power source such as a fuel cell for simple substitution of one known element for another to obtain predictable result.

With regards claim 25, Elsherif et al. disclose a system wherein the or each parallel airstream generation means are provided by two in total number which include one and the other provided at the right and left of a lower portion of a back side of the wearer, respectively (50, 52, see fig. 3, fig 7).

With regards to claim 26, Elsherif et al. disclose a system wherein the or each air exit portion is an end of said guide sheet simultaneously serving as the garment (34a, 36a, 38a, see fig. 3, col. 4, line 1-3).

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With regards to claim 27, Elsherif et al. disclose a system wherein the or each air exit portion comprises a sheet having a larger air permeability constituting a portion of said guide sheet simultaneously serving as the garment (34, 36, 38, 40, 42, col. 3, line 64-65).

With regards to claim 28, Elsherif et al. disclose a system further comprising spacers attached to said guide sheet simultaneously serving as the garment, at important locations of said guide sheet, respectively (34, 36, 38, 40, 42, col. 4, line 5-8).

With regards to claim 29, Elsherif et al. disclose a system wherein said fixation means includes, attached thereto: the or each parallel airstream generation means; an electric- power source for supplying electric power to the or each parallel airstream generation means; and connection means for electrically connecting 'the or each parallel airstream generation means to said electric-power source (in one embodiment, col. 7, line 21-23).

With regards to claim 30, Elsherif et al. discloses all of the above, but fails to disclose: wherein said fixation means is made of a material having a low water absorptivity. It would have been obvious to one having ordinary skill in the art at the time of the invention to choose a said fixation means is made of a material having a low water absorptivity, because it has been held to be within the general skill of a worker in

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the art to select a known material group on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416

With regards to claim 31, Elsherif et al. discloses all of the above, but fails to disclose: wherein said fixation means is formed of a material performed an antifungal process. It would have been obvious to one having ordinary skill in the art at the time of the invention to choose a said fixation means is formed of a material performed an antifungal process, because it has been held to be within the general skill of a worker in the art to select a known material group on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHANIE MCLAREN whose telephone number is (571)270-7127. The examiner can normally be reached on Monday - Friday 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571) 272-5026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SDM/

8/27/08

/Zelalem Eshete/

Primary Examiner, Art Unit 3748